

# Wisconsin Forest Landowner Survey

Understanding the management  
actions of private woodland owners



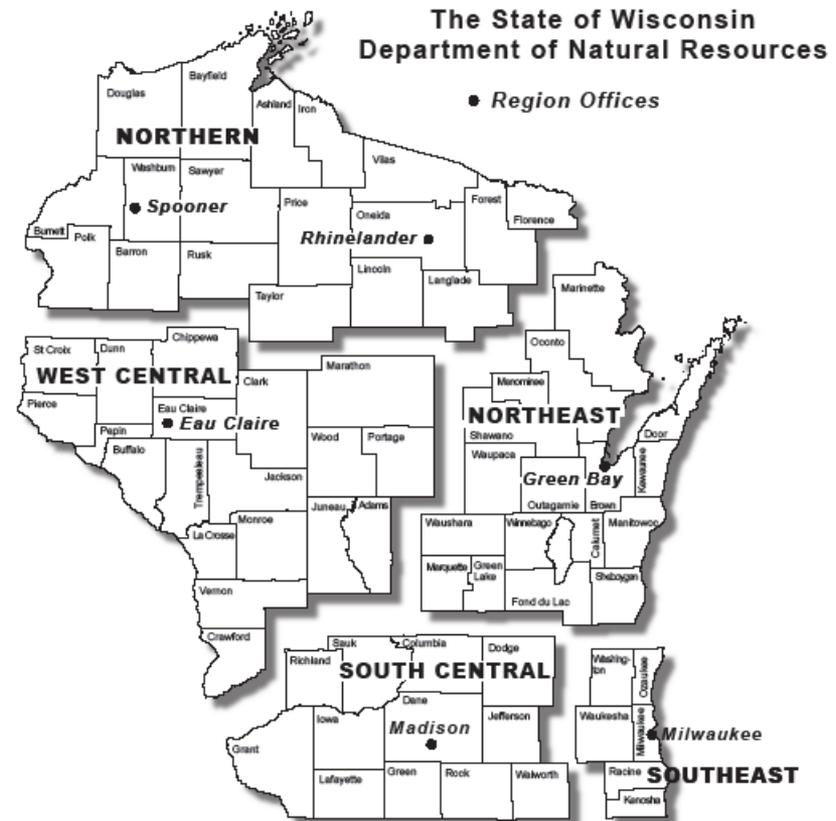
# Introduction

- Most of Wisconsin's forests privately owned
  - 56% forest land owned by families, individuals, groups (Perry et al. 2012)
- Many programs available to landowners
- Assessment of
  - Landowner and land characteristics
  - Landowner attitudes and behaviors
  - Landowner management actions



# Study area

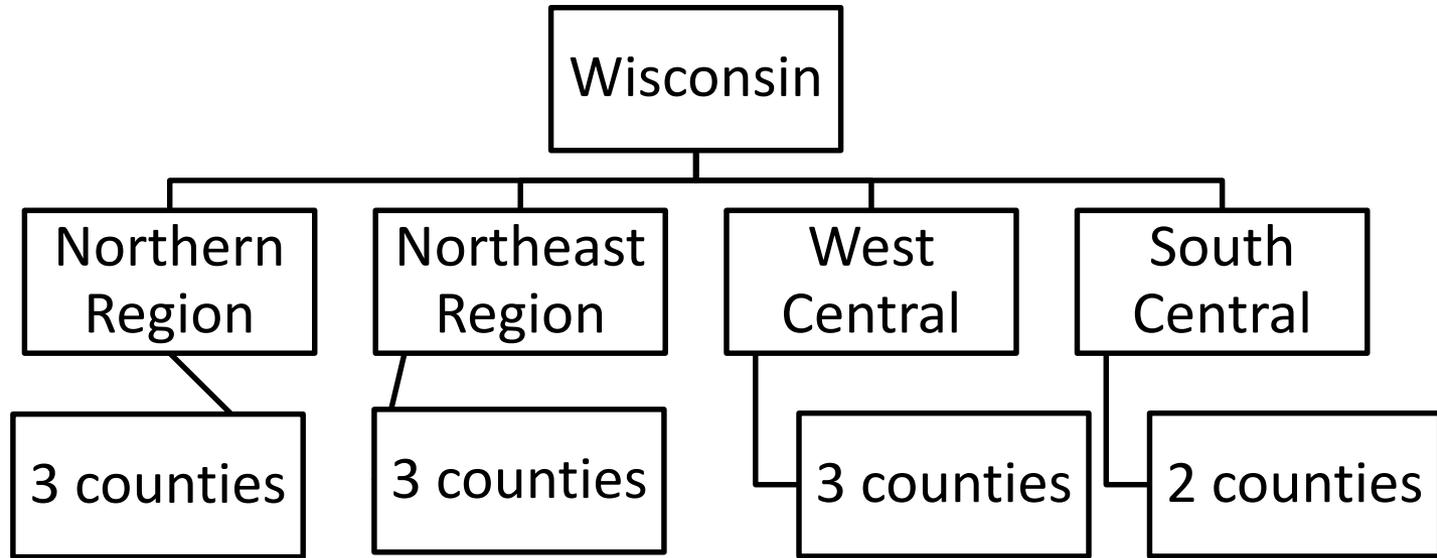
- Four WI DNR Regions
  - Southeast excluded
- 2 – 3 counties per region
- Selected counties
  - $>5 \text{ ft}^3$  total wood material removed/acre forest land (Haugen 2013)
  - Tax role data with addresses in GIS files



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*



# Study area continued

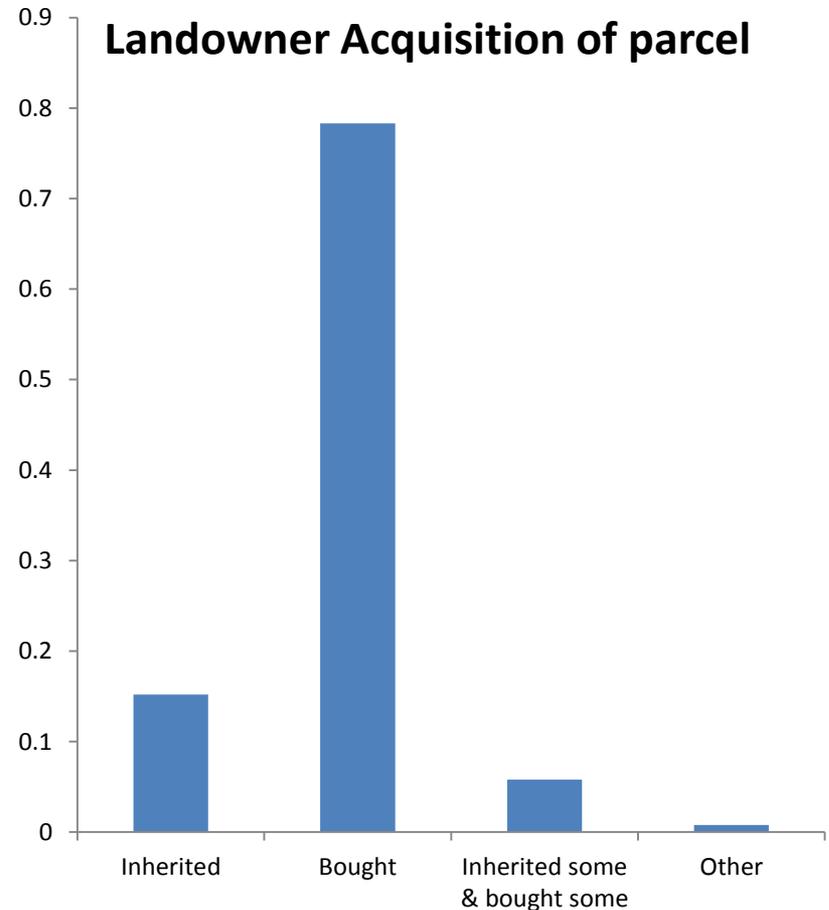


- Originally proposed sample size of 2000
- Sampled 500 landowners per zone
  - Fewer responses needed to limit sampling error
  - GIS tax roll data used for sample sent to mail survey



# Results - Demographics

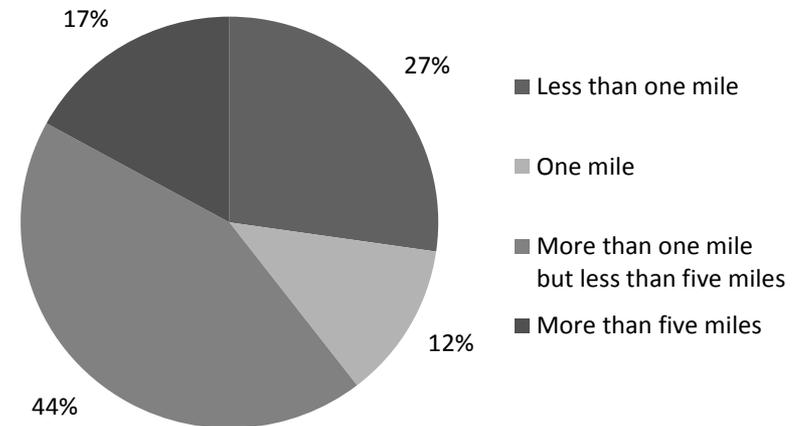
- Response rate ~ 45% \*
- Average age = 61 (11)
- 44% retired
- 36% live on their parcel
- Acquired through purchase
- At least 30% had
  - Management plan for property
  - Hired a forester



# Results – Land characteristics

- Terrain
  - Slightly over 40%
    - Flat
    - Hill
- 78% w/ < 1 mile of roads on parcel
- Mostly w/in 1 – 5 miles of nearest state route

Distance to nearest state route



Ranked mean values (standard error) of variables corresponding to respondent importance of reasons for owning land in survey of Wisconsin forest landowners conducted Winter/Spring 2015.

---

Importance of ownership: Categories: 1 = not important, 2 = of little importance, 3 = moderately important, 4 = important, 5 = very important

---

To provide or improve wildlife habitat	4.255 (0.0327)
Hunting and/or fishing recreation	4.085 (0.0429)
Privacy	3.986 (0.0400)
Scenic beauty	3.980 (0.0356)
To pass land on to future generations	3.949 (0.0408)
Environmental reasons	3.657 (0.0403)
Recreation other than hunting or fishing	3.379 (0.0455)
Land investment/real estate	2.983 (0.0457)
Primary or secondary residence	2.888 (0.0572)
Income from timber production	2.430 (0.0381)

---



Ranked mean values (standard error) of WI forest landowner respondent likelihood of undertaking management practices in survey conducted 2015.

---

Management practices: 1 = extremely unlikely, 2 = unlikely, 3 = undecided, 4 = likely, 5 = extremely likely

---

Manage to improve wildlife habitat	3.597 (0.0434)
Cut trees for own use or purposes other than sale	3.387 (0.0522)
Collect products other than trees from the forest	3.121 (0.0525)
Trail construction or maintenance	3.030 (0.0513)
Plant trees	2.896 (0.0489)
Manage to reduce invasive plant species	2.759 (0.0466)
Manage to reduce invasive insects or diseases	2.569 (0.0448)
Manage to improve water quality	2.467 (0.0443)
Cut trees for sale	2.414 (0.0492)
Road construction or maintenance	1.923 (0.0443)
Conduct a prescribed burn to reduce fire hazard or promote forest regeneration	1.496 (0.0298)



# Participation in forest practices in next 3 years

Manage to improve wildlife habitat	3.592
Cut trees for own use	3.388
Collect products other than trees	3.125
Trail construction/maintenance	3.029
Plant trees	2.871
Manage to reduce invasive plants	2.758
Manage to reduce invasive insects/disease	2.565
Manage to improve water quality	2.472
Cut trees for sale	2.42
Road construction/maintenance	1.932
Conduct prescribed burn	1.495

Scale: 1 = Extremely Unlikely, 5 = Extremely Likely



# Likelihood of harvest

- Willingness to harvest 1 acre of mature hardwood forest
- Payment offer discrete choice (1 of 4 randomly assigned payments)
- Overall 34% of respondents accepted payment offered
- Acceptance rate increased with offered payment



# Model of likelihood to harvest

- Positive significant variables
  - Price offered
  - Presence of permanent structures
  - Written management or stewardship plan
- Negative significant variables
  - Importance of environmental reasons for ownership
  - Number of children



# Conclusion

- Probability of harvest dependent on
  - Price
  - Land characteristics
  - Owner characteristics
  - Landowner preferences
- Were able to determine actions of landowners faced with similar conditions at a point in time
- Further analysis might aid in understanding
  - Not sure population
  - How MFL enrolled lands might have differed from others

